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AN ANALYSIS OF THE NAVY TECHNICAL ORGANIZATION AT THE BUREAU LEVEL

THOMAN JACKSON CHRISTMAN

AN ANALYSIS OF THE NAVY TECHNICAL ORGANIZATION AT THE BUREAU LEVEL

by

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June, 1959

Signature of Author ______________________________
School of Industrial Management, May 4, 1959

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April 9, 1959

Commander Thomas J. Christman, USN
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Dear Commander Christman:

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Richard B. Maffei
Thesis Supervisor
School of Industrial Management

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AN ANALYSIS OF THE NAVY TECHNICAL ORGANIZATION AT THE BUREAU LEVEL

by

Thomas Jackson Christman
Commander, U.S. Navy

Submitted to the Department of Industrial Management on May 4, 1959, in partial fulfillment of the requirements for the degree of Master of Science.

ABSTRACT

Since World War II, the Navy Department Organization has undergone several important changes reflecting the changing pattern of combat forces and the growing concern of the Nation about the threat of a Soviet Union blitz war employing hydrogen bombs. This study reports an inquiry into the existing Navy Department Organization, particularly in the area of material, and makes recommendations for changes therein.

In this study, an attempt was made to examine the Navy Department Organization in its entirety, for the purpose of developing a new concept of organization. Emphasis has been placed on proposing novel arrangements of functions rather than on seeking feasible arrangements.

In the collection of data, emphasis was placed upon using the investigator's background as a naval engineering duty officer and upon examination of selected literature concerned with organization and Navy business operations. Discussions were held with Navy executives as a check upon the problems stated in the literature. From the viewpoints and facts collected, inferences and conclusions as to Navy Organization were drawn. After these were subjected to criticism and test, final conclusions and recommendations were made.

The study concludes that activities at the technical bureau level can be divided into two major groups: broad decision making and directing operations. Attention is invited to the "floating base" concept, which divides the functions performed by a ship into two major parts: providing long-term housing and transport for military personnel, and providing the base for command and for supply of weapons during battle. A final conclusion is made that strong centralization of control of the Navy material functions should be effected.

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Major recommendations include establishment of the Under Secretary of the Navy as "general manager" over the Chief of Naval Operations, establishment of a new Assistant Secretary for Operations, reassignment of all bureaus having personnel functions to the Assistant Secretary for Personnel and Reserve Forces, establishment of a single Assistant Secretary for Material, and establishment of a Service of Naval Material formed by merger of all material bureaus.

Thesis Supervisor: Samuel E. Eastman
Title: Lecturer in Industrial Management and Defense Policy

PROLOGUE

"Nor do I hold with those who regard it as presumption if a man of low and humble condition dare to discuss and settle the concerns of princes; because, just as those who draw landscapes place themselves below in the plain to contemplate the nature of the mountains and of lofty places, and in order to comtemplate the plains place themselves high upon the mountains, even so to understand the nature of the people it needs to be a prince, and to understand that of princes it needs to be of the people."

Nicolo Machiavelli
The Prince, p. 2

6 North Gateway
Winchester, Massachusetts

May 4, 1959

Professor Alvin Sloane
Secretary of the Faculty
Massachusetts Institute of Technology
Cambridge 39, Massachusetts

Dear Professor Sloane:

In accordance with the requirements for graduation, I herewith submit a thesis entitled "An Analysis of the Navy Technical Organization at the Bureau Level."

I wish to take this opportunity to thank my advisors, Samuel Eastman and Elting Morison, for their constructive criticism and guidance. Special acknowledgement is due to Bernard J. Muller-Thym for his provocative lectures which underlie many of the figures of this report.

Further, I should like to acknowledge the suggestions and teachings of my other instructors and of officials of the Department of Defense. However, the thoughts and opinions expressed in this thesis are those of the author and are not necessarily those of the Defense Department, nor of the Navy Department.

Very respectfully,

Thomas J. Christman
Commander, U.S. Navy

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CHAPTER I

PREPARING TO GET UNDERWAY

In world history, the Twentieth Century may very well be nicknamed the "Century of Change." Since World War II, the United States military organization has contributed several important changes to the historical grab bag of the Century. In 1947, a new Department of Defense was created. Subsequently, the Department of Defense has undergone three major changes. After each of these changes, the Navy Department organization has been altered in a process of accomodation. These changes in military organization reflect the changing pattern of combat forces and the growing concern of the Nation about the threat of a Soviet Union blitz war employing hydrogen bombs.

The Honorable Thomas S. Gates, Secretary of the Navy, has emphasized the necessity for continued change as follows: "the Navy must also develop and use new concepts of management and executive development to ensure efficiency and the best use of people."[1] Professor Leo B. Moore of the Massachusetts Institute of Technology stressed the significant emergence of change by stating that "improvement has become one of the most important processes of management -- on a par with the traditionally recognized processes of planning, organizing, operating, and controlling."[2]

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[1] "Naval Leadership," U.S. Navy Department General Order No. 21 of March 17, 1958.

[2] Leo B. Moore, "How to Manage Improvement," Harvard Business Review, 36:75, July-August, 1958.

In August 1958, the 85th Congress passed the Department of Defense Reorganization Act of 1958. Certain provisions of this Act called for changes in the Navy Department which became effective in February, 1959. As a consequence, the Navy Department is in the process of taking a new look at its organization. A committee with Under Secretary Franke as chairman recently reported its findings and recommendations to the Secretary of the Navy.[3] In keeping with the spirit of the times and with the current interest of the Navy Department in reorganization, this study reports an inquiry into the existing Navy Department Organization and makes recommendations for changes therein.

Statement of the problem. It was the purpose of this study:

(1) to analyze organizational features of the Navy Department at the Technical Bureau level.

(2) to examine the conclusions, recommendations, and observations of various committees studying governmental organization for pertinent viewpoints having application to an improved Navy Department Organization.

(3) in the light of the above analysis and examination, to recommend changes in the Navy Department Organization for effecting a better Technical Organization at the Bureau level.

Justification of the study. There has been recently an invigorating rebirth in the study of organization of large businesses. Managers are approaching the study of a company from the point of view of the whole and are attempting to avoid the pit-falls of

sub-optimization.[4] All of the studies of Naval Organization examined by this investigator have been concerned more with increasing the efficiency of functional parts, rather than looking at the Navy Department as a whole. The Hoover Commissions of 1949 and 1955 seemed to concentrate on the study of functional parts. In this study, an attempt was made to examine the Navy Department Organization from the point of view of the whole, for the purpose of developing a new concept of organization. Emphasis has been placed on proposing novel arrangements of functions, rather than on seeking feasible compromises.

Limitations of the study. For the purposes of this study, the Technical Organization at the Bureau level of the Navy Department (hereafter referred to as the Navy Technical Organization) is defined to be those activities, offices, and individuals of the Navy Department charged with the research, development, procurement, production, and distribution of material and facilities in support of the Operating Forces.[5] The Navy Technical Organization as defined does not exist today as a specific entity in the Navy Department. For the purposes of this study, it serves, however, as a useful conceptual building block,and further, it emerges as a proposed entity in the recommendation for a Service of Naval Material. The limiting phrase "at the

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[3] William B. Franke, Chairman, et. al. Report of the Committee on Organization of the Department of the Navy 1959 (Franke Report) (Washington: Department of the Navy, 1959)

[4] Peter F. Drucker, The Practice of Management (New York: Harper & Brothers, 1954), pp. 193-4.

[5] Report of the Committee on Organization of the Department of the Navy, (Gates Report) 16 April 1954 (Washington Government Printing Office, 1954), pp. 3-13.

Bureau level" serves to alert the reader that this study is primarily concerned with organizational relationships of the Navy Department at Washington, D. C. These organizational relationships include those between the various Assistant Secretaries, the Chief of Naval Operations, the various Technical Bureaus, and the various Offices. Existing organizations are broadly divided as follows:

Within the technical <u>organization</u>	Outside the technical <u>organization</u>
Under and Assistant Secretaries of the Navy	Chief of Naval Operations
Office of Naval Material	Commandant of the Marine Corps
Office of Naval Research	Bureau of Naval Personnel
Bureau of Ships	Bureau of Medicine and Surgery
Bureau of Ordnance	Office of Industrial Relations
Bureau of Aeronautics	Office of the Judge Advocate General
Bureau of Supplies and Accounts	Navy Management Office
Bureau of Yards and Docks	Office of Information
	Office of Analysis and Review

The naval activities, under the management control of the bureaus and offices, and the industrial contractors are the building blocks which the Navy Technical Organization is directing in its mission of providing material and facilities in support of the Operating Forces.

The research method employed. The study proceeded in the following phases:

Phase 1 -- the collection of data.

For providing direct data, the investigator has had various duties in the Navy Technical Organization as an Engineering Duty Officer since 1950. Assignments have included a two-year tour at a guided missile liaison office, the Bureau of Ordnance Technical Liaison Office, Southern California Area; two years as the SIDEWINDER guided missile project coordinator at the Naval Ordnance Test Station, California; and four years as a technical administrator in the Research Division, Bureau of Ordnance, Washington, D. C.

To supplement this personal experience, data was collected in two ways: reading of selected literature concerned with organization and Navy business operations, and discussions with Navy executives.

The reading was selected to give a broad overview of Navy administrative history since the American Revolution and then to concentrate upon writings concerned with military organization during World War II and later. In particular, the establishment of the Department of Defense and three subsequent modifications were studied. Parallel with this, many of the reports of the Hoover Commissions of 1949 and 1955 were studied. Other reports studied included the Rockefeller Report of 1953 and the Gates Report of 1954. The Libby report and the McManes report, unpublished internal Navy studies, were also reviewed. Various reports of the Industrial College of the Armed Forces furnished additional information. The Franke Report of 1959

was available for review about one week before this study was completed.

The discussions were conducted to provide additional background information and to insure that the problems mentioned in the literature included all of the major problems affecting today's Navy executives. Meetings were held with two Assistant Secretaries of the Navy, three technical bureau chiefs, two other flag officers, and several junior executives. Each of the executives was furnished a list of four questions, included as Appendix A, about two weeks in advance of the interview. The questions were used to acquaint the executive with the kind of information that the investigator was seeking. No attempt was made to force answers to the specific questions, and in some cases, none of the questions were discussed. The sum total of the personal interviews reinforced the material gathered in the investigator's personal experience and in the study of the literature.

Phase 2 -- the classification and arrangement of facts.

As the study of the literature was completed and the discussions were concluded, notes were made of what appeared to be significant viewpoints. About the end of phase 1, various charts and tables were made to illustrate relationships such as the flow of money and material, the flow of information, steps in a project sequence, decision levels, analysis of coordinate relationships, and analysis of activities. Figures 1 through 3 of Chapter III illustrate the type of chart constructed.

Phase 3 -- the making of inferences and drawing of conclusions.

Based on the analysis of the data and facts, various tentative

Navy Department Organizations were synthesized, conclusions were established, and recommendations for changes were proposed.

Phase 4 -- the subjecting of inferences and conclusions
to criticism and test.

As the weeks elapsed during this study, consideration of all the viewpoints and analyses caused a continual changing of the conclusions and recommendations. Comments by various instructors of the Massachusetts Institute of Technology also initiated chain-reaction changes which fed back into restudy of the inferences and conclusions, caused abandonment of some material, and making of new proposals.

Phase 5 -- the establishing of final conclusions.

Precipitated by the catalyst of a deadline date, and born from the amorphous collection of viewpoints, analyses, proposals, and criticisms, the conclusions and recommendations of this report have emerged.

Major Conclusions and Recommendations. The investigator has come to certain conclusions, as follows:

(1) The objectives of the Navy Department must be established to meet the requirements of three groupings of people: the enemy as a consumer, the American people as a whole setting the working framework, and the individual as an articulate source of power and labor.

(2) The additional subsidiary objectives of the Navy Technical Organization are to provide maximum readiness of support to the Operating Forces, orderly innovation of new material, and maximum cost efficiency in executing the annual expenditures.

(3) The activities presently conducted at the bureau level can be divided into two major groups: broad decision making, and directing operations.

(4) The unique feature of the Navy is its floating bases, which serve the dual function of providing long-term housing and transport prior to engagement with the enemy and then of providing the source of command and weapons during the engagement with the enemy.

(5) Strong centralization of control of Navy material functions should be effected.

To enable the Navy Department to meet its objectives in an improved fashion, this investigator recommends the following major actions:

(1) The Under Secretary of the Navy should be established as the General Manager of the Navy Department directly under the Secretary of the Navy.

(2) The assignment of an Assistant Secretary of the Navy for Personnel and Reserve Forces should be continued, and he should be assigned the over-all responsibility for supervising and coordinating the Bureaus of Naval Personnel and Medicine and Surgery, and the Offices of Industrial Relations and Judge Advocate General.

(3) A new Assistant Secretary of the Navy for Operations should be authorized and designated. He should report to the Under Secretary of the Navy and should be charged with collaborating with the Chief of Naval Operations and the Commandant of the Marine Corps on provision of Operating Forces for the prosecution of war.

(4) An Assistant Secretary of the Navy for Material should be authorized and designated. He should be assigned over-all responsibility for supervising and coordinating the Service of Naval Material.

(5) There should be no other Assistant Secretaries.

(6) A Service of Naval Material should be established to be headed by a Vice Admiral. This Service should absorb the functions previously executed by the Offices of Naval Research, Naval Material, and Naval Petroleum and Oil Shale Reserve; and the Bureaus of Aeronautics, Ships, Ordnance, Supplies and Accounts, and Yards and Docks.

(7) The Washington, D. C. Office of the Service of Naval Material should be concerned with broad decision making. The remaining activities concerned with directing operations should be relocated outside of the Washington area.

(8) The remaining activities of the Service of Naval Material concerned with directing operations should remain organized broadly as at present within the Bureaus of Supplies and Accounts, and Yards and Docks, and the Office of Naval Research; but in the Bureaus of Ships, Aeronautics, and Ordnance, radical changes should be made. These latter three Bureaus should be reconstituted into two new Bureaus: Ships and Weapons. The new Bureau of Ships should provide the floating bases for the Operating Forces. The new Bureau of Weapons should provide all of the elements of the weapons systems needed for control in battle and for delivery of the destructive force to the enemy. The Bureau of Weapons should include the functions of the existing Bureau of Ordnance and the existing Bureau of Aeronautics, plus the radar,

sonar, radio, and combat information center responsibilities of the existing Bureau of Ships.

Organization of this report. The detailed material of this report is presented in the three subsequent chapters. In the first of these chapters, the investigator identifies three objectives of the Navy Department and three subsidiary objectives of the Navy Technical Organization which appear to be major aims for which the Navy strives. These objectives play dominant roles in shaping the proposals for changes in organization included in this report. In the second chapter, the pie of the Navy Department Organization is sliced in three different ways, in order to gain understanding and a framework for proposed changes. Thus, examination is made of decisions, relationships, and activities concerned with the meeting of Navy objectives. Finally in the third chapter, description is made of the conclusions and recommendations reached in this study and of the underlying reasoning supporting them. A final chapter presents the conclusions and recommendations in summary form.

CHAPTER II

NAVY OBJECTIVES

When one considers the Navy Department Organization as a whole, a most logical starting point is to state the aims of the Department. With what responsibilities is the Navy Department charged? What are the objectives which the more than a million Americans employed by the Navy are trying to achieve? Surely from these objectives must stem important forces shaping the Navy Organization. This investigator believes that one of the most heartening aspects of the complex Navy Organization is the agreement on desired objectives of the Navy.

I OBJECTIVES OF THE NAVY DEPARTMENT

The objectives of the Navy Department must be established to meet the requirements of three groupings of people: (1) the enemy as the consumer, (2) the American people as a whole setting the framework, and (3) the individual as an articulate source of power and labor. Although in wartime because of the impelling need for security American groupings may subvert occasionally their requirements, any stable long-time organization must consider the needs of all three. As suggested by Mahan, the one may be greater and the others the lesser; nevertheless, all combine to form important indispensable portions of the whole.[1]

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[1] A. T. Mahan, Naval Administration and Warfare, (Boston: Little, Brown, and Company, 1908), p. 9.

Provision of forces for war. It becomes almost trite to state that the Navy Department must provide the Naval Operating Forces for the prosecution of war.[2] Because this objective is so obvious, its unique wartime requirements may often be overlooked in the doldrums of peace. The objective of providing and maintaining a navy in order to provide for the common defense stems directly from the provisions of the Constitution. The requirements of the Operating Forces stem ultimately from the capabilities of the expected enemy. The DEW line and interception missile are demanded by the Soviet long-range bomber. The effective sonar equipment and the SUBROC missile are needed because of the threat of enemy submarines operating close to American shores.

The consequences of this objective are many and varied. Some naval officers demonstrate such slavish devotion toward meeting this objective that they tend to minimize or overlook concurrent requirements of the nation as a whole, and of each employee for himself.

For instance, some naval officers find it difficult to reorient their procedures when performing duty at a business-oriented naval activity ashore after a military command at sea. The employment of naval forces in war is the antithesis of democracy. Coordinated obedience becomes essential in combat, rather than an unfettered cooperation.

Yet, a significantly different climate of mangement should exist in the Navy Technical Organization. In war, men and material

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[2] "Functions of the Department of Defense and its Major Components" Department of Defense Directive No. 5100.1 of 31 December 1958.

may be destroyed by enemy action. At any time, equipment may be rendered obsolete by new enemy technical achievements. One's own scientific discoveries may supersede existing material.[3] Just when obsolescence will occur is often unpredictable. The areas to be damaged by the enemy and the technical advances which he may achieve are not readily definable in advance, but the organization must be able to compensate for their occurence.

The environment of war may extend from the ice-floes of the Arctic to the tropical jungles of the Equator. The extent of operations may vary from an all-out blitz to a temporary landing in Lebanon. The Navy Department must meld human failings, modification of political principles, uncontrolled losses, a world battleground, and a variety of possible engagements with ingredients of men, machines, and facilities to produce effective Naval Operating Forces.

Conformance with national customs, mores, and laws. The customs, mores, and laws of the democratic United States have placed complex procedures and irritating hindrances upon the naval administrators, both civilian and military. Civilian control, civil service, and congressional investigations form essential ingredients of the Navy's potpourri. These ingredients will require a senior Navy Admiral to answer patiently elementary questions for the education of a freshman Congressman.[4] Congressional desires for advertised-bid contracts,

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[3] Elting E. Morison, Admiral Sims and the Modern American Navy (Boston: Houghton Mifflin Company, 1942), p.61.

[4] Ernest J. King and Walter M. Whitehill, Fleet Admiral King A Naval Record (New York: W.W. Norton and Co., 1952), p.259

a labor union's decision to strike, and a President's desire to balance the budget will place important bounds upon the sphere of allowable operation of the Navy Department.

The naval administrator must understand these complex relationships and lead his organization to perform in harmony with the multiple objectives of the American people. In the stress of wartime, the American people will effect changes which give the Navy Department ample freedom.

Meeting needs of the individual employee. The civil servant and the military man require career patterns that motivate them to sustained effort during the long duration of the cold war. Career patterns may be de-emphasized during wartime, but even then, recognition of an individual's efforts is a necessity. As illustrations of the belief in importance of the individual, two examples are cited. William R. Kintner, in writing a provocative book about the Defense Department, considers that "perhaps the most vital element in a defense organization is the manpower within it."[5] The foreword in the book Naval Leadership stresses that "no matter what the weapons of the future may be, no matter how they are to be employed in war or international diplomacy, man will still be the most important factor in naval operations."[6] If adequate career patterns are not in effect,

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[5] William R. Kintner, Forging a New Sword A Study of the Department of Defense (New York: Harper and Brothers, Publishers, 1958),p.21.

[6] Malcolm E. Wolfe, Frank J. Mulholland, John M. Laudenslager, et al., Naval Leadership (second edition; Annapolis: U.S. Naval Institute, 1959), p.v.

enlisted men fail to reenlist, civil service workers quit, and naval officers resign. The pay raises of 1958 and emphasis on education and training at government expense reflect the continuing interest of government administrators in this area.

II SUBSIDIARY OBJECTIVES OF THE NAVY TECHNICAL ORGANIZATION

In addition to supporting the objectives of the Navy Department Organization, the Navy Technical Organization is concerned with the following subsidiary objectives.

Providing maximum readiness. In its Operating Forces and supporting industrial complex, the navy must be at maximum readiness at all times.[7] The navy has not forgotten the painful sting of Pearl Harbor. The intercontinental bomber and the intercontinental ballistic missile armed with nuclear warheads have brought the threat of crushing enemy action against the United States homeland within a few hours or perhaps minutes of an opening of hostilities. This objective poses the continual problem of balancing when the Department should be satisfied with the present state of the art and go into production against when research and development engineers should be permitted additional time to improve the proposed design in order to make it more suitable for the Operating Forces. Limitations on the availability of national resources usually prevent all alternatives being supported.

Achieving orderly innovations. Kintner establishes that one of the Department of Defense measures of performance must be that it

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[7] Kintner, op. cit., p. 15.

"assure maximum development and application, with minimum duplication and waste, of available scientific resources."[8] This is equally valid as a Navy objective. It is in this area perhaps that the most searching congressional examinations will take place. In an era of rapid technological change, scientific breakthroughs must be speedily transformed into available combat weapons.

Producing maximum cost efficiency. A military technical organization has the additional responsibility "to achieve maximum cost efficiency and to gain the optimum defense capabilities from the dollar expenditures available."[9] Common sense demands that the Navy provide maximum security for the resources which have been allocated.

III SUMMARY

The desired objectives of the Navy Department provide dominant forces in shaping the Navy Organization. In considering objectives of the Navy Department as a whole, it becomes convenient to focus on three major objectives: (1) provision of forces for war, (2) conformance with national customs, mores, and laws, and (3) meeting needs of the individual employee. Within the Navy Technical Organization, which is concerned with the provision of material and facilities in support of the Operating Forces, three subsidiary objectives are identifiable. These are (1) providing maximum readiness, (2) achieving orderly innovations, and (3) producing maximum cost efficiency.

The objectives examined in this chapter serve as the backdrop for the stage to be examined in the next chapter.

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[8] Kintner, op. cit., p. 18.

[9] Kintner, op. cit., pp. 20-21.

CHAPTER III

ANALYSIS

The objectives developed in Chapter II represent the needs which the Navy Organization must be designed to fulfill. Although this investigator has chosen to emphasize technical aspects of the organization, consideration must be given to all objectives of the Navy Department and their inner relationships. In this Chapter, a look is taken in three ways at Navy Organization aspects.[1] In making such an overlapping analysis, one obtains a better grasp of the fundamental workings of the Navy Department.

I ANALYSIS OF DECISIONS

Capturing the true decision-making process of the Navy Department is difficult because of the many forces which may come to bear on any decision. Kintner has captured the problem of the military department as he states:

> The Defense Department organizational structure and procedures must be such as to foster a decision-making process, including a cycle of research and development, which assures the timely introduction of the most scientific advances into modern armed forces and their weaponry, but in a planned, smooth transition which avoids disrupting the effectiveness and readiness of forces already maintained. . . . .[2]

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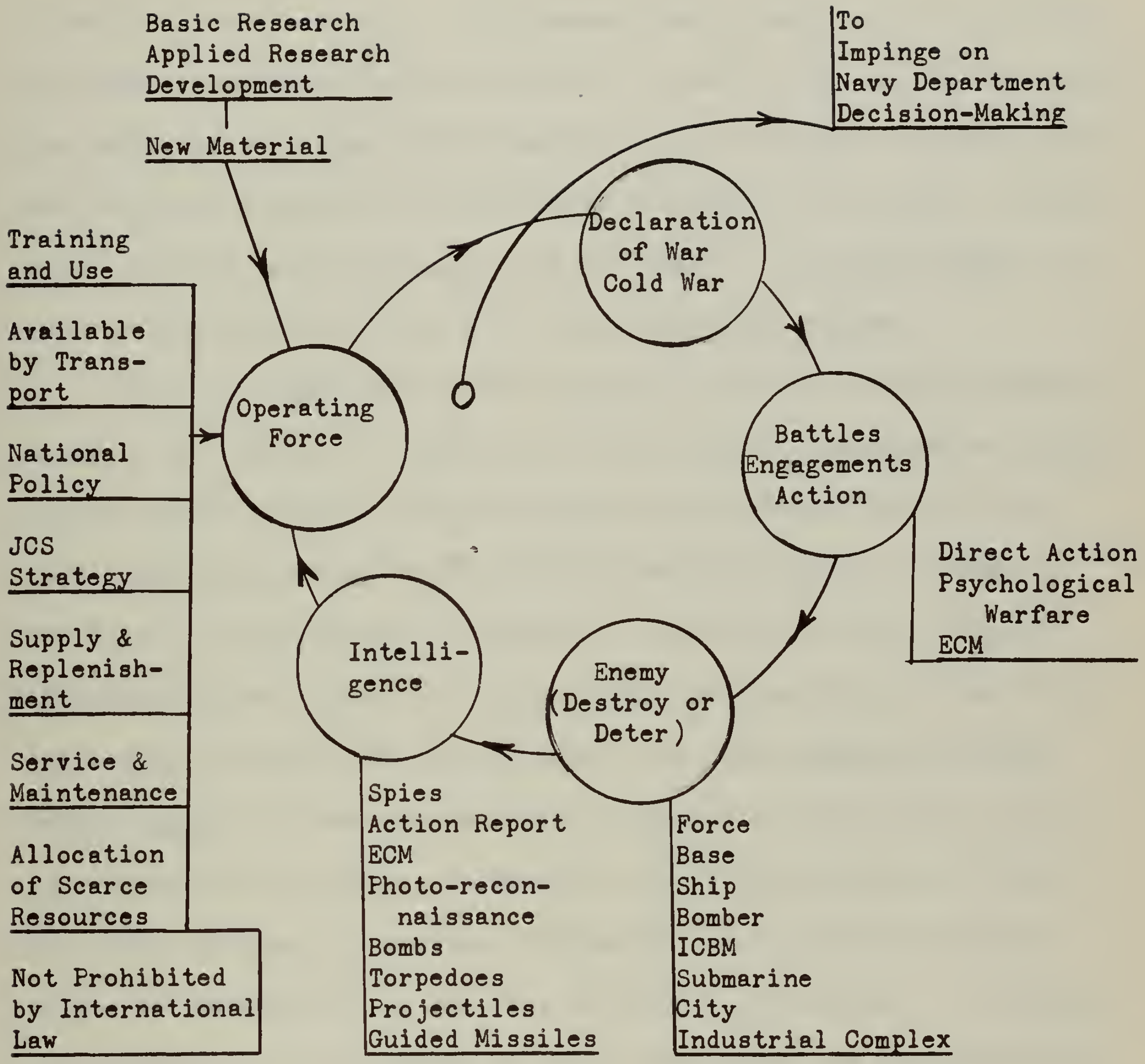
[1] Peter F. Drucker, The Practice of Management (New York: Harper and Brothers Publishers, 1954), pp. 193-226; James C. Charlesworth, Governmental Administration (New York: Harper and Brothers Publishers, 1951), pp. 217-238.

[2] William R. Kintner, Forging a New Sword (New York: Harper and Brothers Publishers, 1958), p. 19.

In a military department, the most important source of impingement upon the decision-making process, particularly in time of war, is the friendly-enemy complex. In Figure 1, the factors which provide the backdrop for this impingement are illustrated. One's own Operating Forces after a declaration of war deliver war goods to the enemy during battles and engagements. Through intelligence, the military market research, information is fed back to the Operating Forces. This may be used in changing a combat tactic or in the case of an enemy innovation, the intelligence information is fed back to the Navy Department to impinge upon the decision-making process of the Technical Organization. Also illustrated are many factors which are impinging upon the Operating Forces in addition to intelligence. Important among these is the new material being generated by research and development from the Navy Shore Establishment. It should be noted that the enemy is both a customer and a competitor. He is not only consuming the Navy's goods, but he is also attempting to deliver his own goods to the Operating Forces. The Operating Forces send back to the Navy Department requirements for materials to keep the fleet operating, requests for replacements for damaged or destroyed vessels, and requirements for technological improvements to compete with the forces of the enemy and nature. The local Washington representative of the Operating Forces is the Chief of Naval Operations. Another important impingement on the process and in many ways a part of the process is the contribution by the private contractors and the naval activities. These two groups of agencies do the physical work which leads to the



Note: This complex has a mirror image in which the enemy is carrying out a similar process on the Operating Forces.

Figure 1. The friendly-enemy complex which impinges on the Navy Department decision-making process.

output of actual hardware. Superimposed above them is the navy bureau and department hierarchy which conducts a decision making process during the making of the budget and technical program review. The budget and the technical program are inextricably interlaced. To conduct a technical program, one needs money from the budget. To obtain money, one must have the justification of a needed technical program.

The doer agencies provide technical proposals and dollar requirements to the bureaus. Since they are the source of information closest to the actual hardware, they play their most important part in the decision-making process by controlling what information is passed to the bureau and department for review. A chemistry student in high school sometimes adjusts the results from his experiments to meet the known facts required for the workbook. The doer agencies sometimes provide only the facts necessary for a supported point of view. The sin may be one of omission rather than one of falsification of facts. This same difficulty is present throughout the organization as any holder of information may act as a distorting transmitter. It should be noted that the withholding of vital information may be inadvertant rather than deliberate. In some cases, only a delaying action is necessary to affect the course of decision making.

The flood of information into the bureaus ebbs and flows with the budget year. As the technical bureaus commence budget preparation early in the calendar year, the major decision-making process of the bureaus begins. Financial requirements and technical proposals are received from industry and government activities. Project officers

and engineers scurry to place their projects in rounded shape as the decision making process is about to begin. They again participate in the process as they delete or add specific technical proposals in their area of responsibility. The project officer (who may be either a civilian or a military person) is the focal point in the bureau where "directing operations" lets off and "broad decision making" commences. As illustrated in Figure 2, the project officer and his subordinates direct operations by initiating the task authorizations and contracts to the doer activities. They initiate the decision-making process by gathering together a synthesis of the technical proposals and the financial requirements in the form of budget requests. These budget requests then go to higher review levels, where the proposals of several project officers are consolidated. At this point, the review level may approve unchanged, delete completely, or adjust up or down the budget requests. Review levels are particularly concerned with balancing program emphasis or placing adequate support in projects where critical dates are involved which interlock with other important projects. Decisions are made on the basis of beliefs as to the relative priorities of programs influenced by official letters, personal telephone calls, Sputniks in the air, technical promise, past history of higher reviews, and individual convictions.

On the surface, the decision-making process appears deceptively simple. But as the pruning of requests occurs on the budget tree, cross-coordinating aspects of the changes become important. Will there be adequate funds in the programs approved to support the

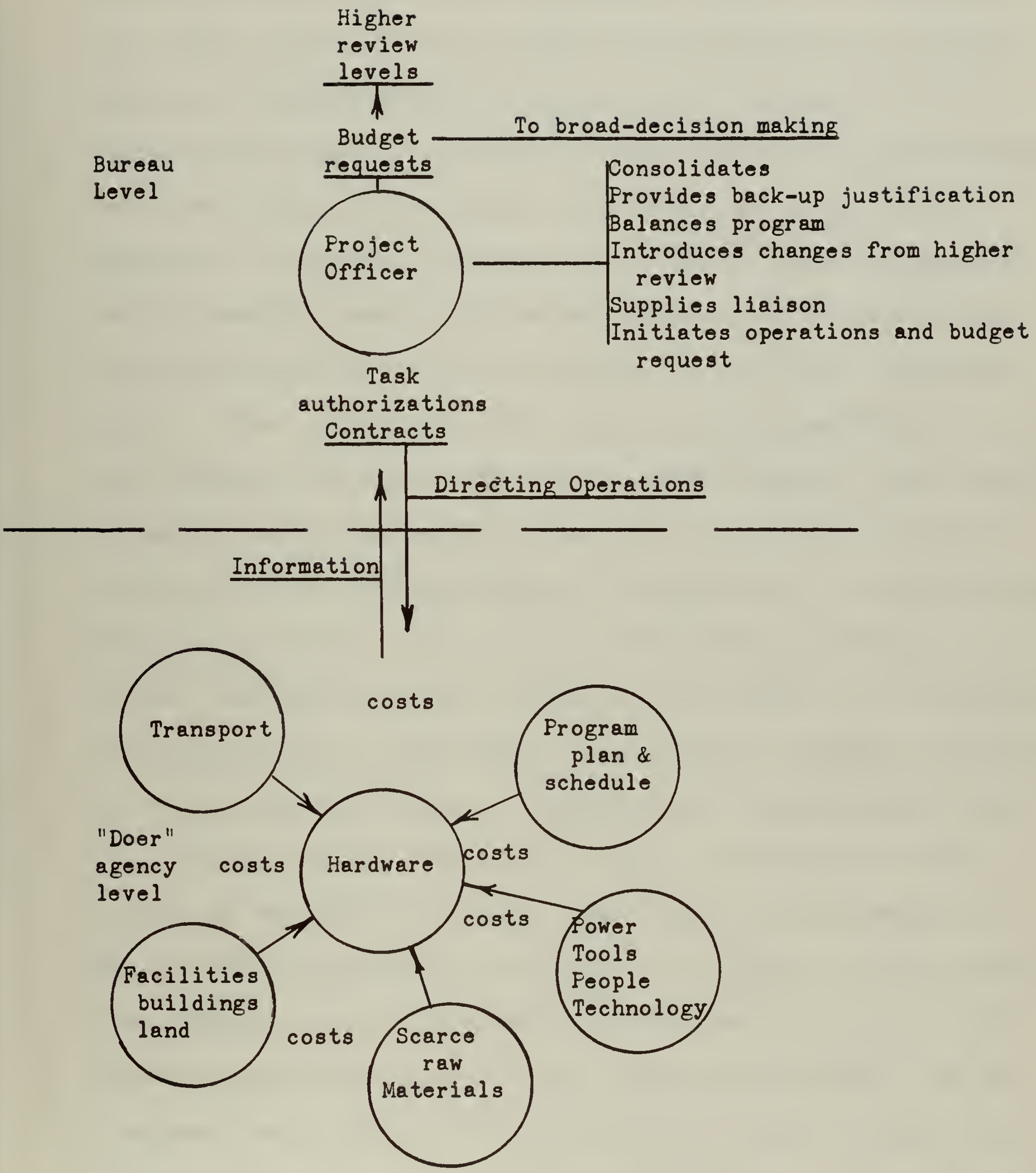


Figure 2. Activities at the Bureau level and at the "Doer" agency level.

presently active stations and contractors? What are the consequences of a major contractor, such as Chance-Vought, losing major contracts, such as the REGULUS II guided missile and the F8U fighter? If the requested facilities are disapproved, where will the long-range missile be tested, or how will the giant rocket motors be manufactured in quantity? If support is not given to the powder factory in Maryland or the ammunition depot in Massachusetts, what will be the local public reaction and that of the corresponding Congressional representatives? If the 100 POLARIS rocket motors are to be manufactured in the only available facilities, where will the 5000 REGULUS I rocket motors be built? Can two surface-to-surface missile programs be afforded, or should all effort be placed on one of the missiles? Are enough critical materials available? These examples illustrate the varieties of decisions. Nevertheless, they are being and will be made. The frustrations occur as the various administrative levels begin to disagree violently as to which projects should be supported and at what financial levels.

As the project officer has his higher review levels within a bureau, so the bureaus have their higher review levels acting in the Chief of Naval Operations, the Secretary of the Navy, and their associated offices. The Navy Department, in turn, must face review by the Defense Department, the Bureau of the Budget, the President, and the Congress. The Secretary of the Navy ultimately must consolidate the individual bureau budgets into a single Navy budget. At this level, broader considerations - political, strategic, and economic - force decisions as to inclusion or omission of entire projects or groups of

projects. In some cases, only financial levels will be altered. In the making of these decisions, consideration must be given to the hurt feelings of the behemoths, the technical bureaus. As loyal, strongly-motivated social groupings, the people of a bureau feel a strong sense of disappointment as their splendid TRITON missile program is cancelled in favor of the not-invented-here REGULUS II missile of a sister bureau. The sense of loss is similar to that felt by the students of a university when their team comes out on the short end of the score.

II ANALYSIS OF RELATIONSHIPS

The navy press gang has given way to selective service. The mail-carrying sloop has given way to world-wide radio communication. The war supply from a "have" nation of raw materials has given way to severe restrictions and control of critical materials. Changing relationships such as these require adaptive changes in the Navy Organization. Relationships have an amorphous character, much like the morals of a nation, which makes specific description difficult. These relationships nevertheless exist and they place important bounds on a naval administrator's conduct and upon his organization. Figure 3 illustrates three important relationships: political, economic, and individual. Urwick, in describing management as a basic intellectual discipline calls these relationships: political science, economics, and psychology.[3] The Naval Organization must accomodate these and learn to live with them.

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[3] L. Urwick, The Content of Management (a four-page discussion sheet.

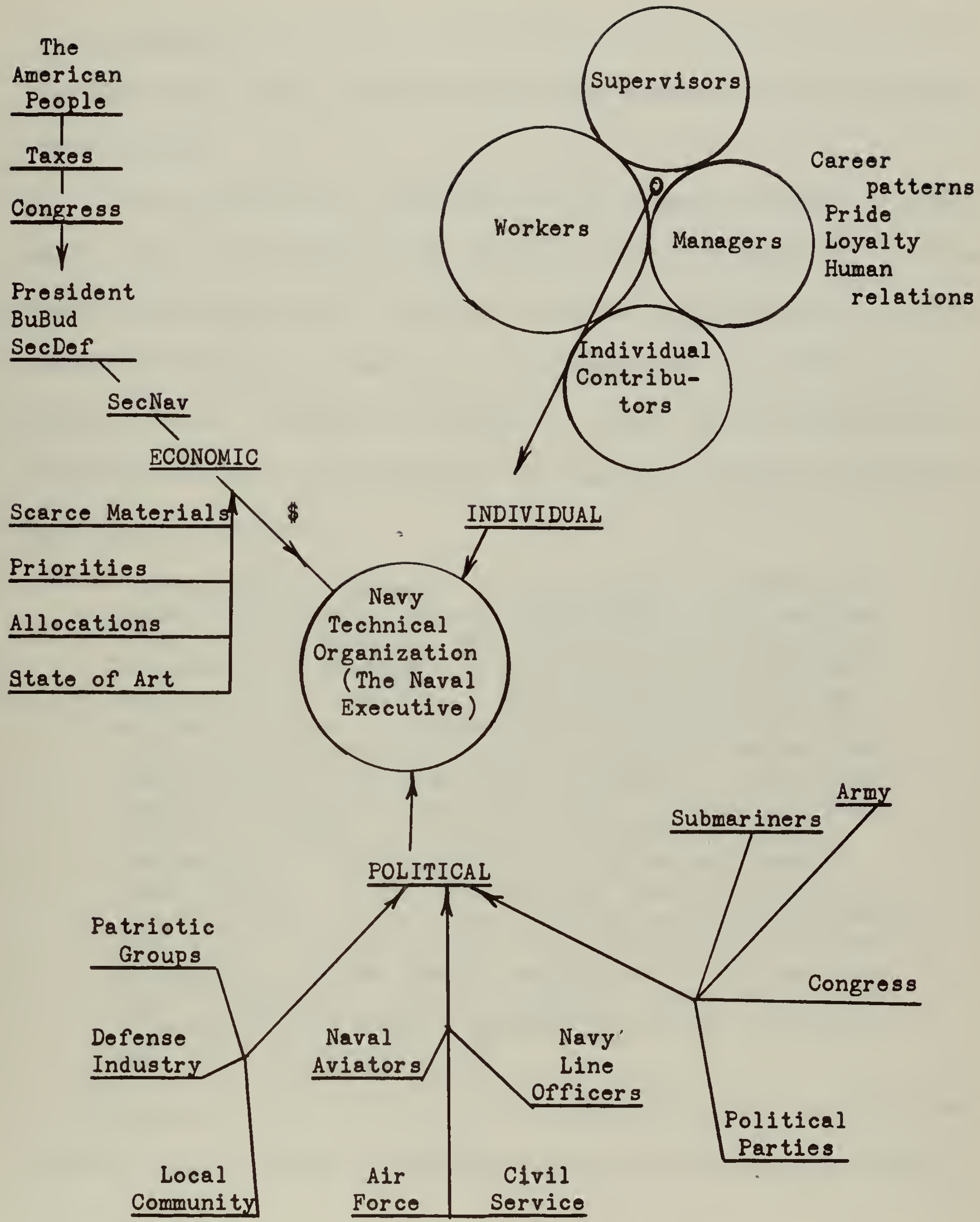

Figure 3. Political, economic, and individual relationships which impinge on the Navy Department and the Navy Technical Organization.

Political. Political relationships may be exemplified by the following three areas: presidential, congressional, and military personnel groups.

The President has a complex job with a maximum tenure of eight years. He is the leader of his political party, the chief of the armed forces, the leader of the executive branch of the government, and the leader of the nation in the eyes of the people of the world, both at home and abroad. Richard E. Neudstadt, a former White House advisor, succinctly captures the President's dilemma with respect to the military budget as follows:

> ...That budget represents more than half the dollars of federal outlay year by year, four-fifths of the persons on all federal payrolls, half the Government's civilian personnel. It represents a mainstay of deterrence and recourse in the cold war, a bed-rock stabilizer in the national economy. Its annual determination raises issues of strategy, of economics, politics, administration, and (emphatically) technology; none of which are really manageable in annual or financial terms ... ; none of which are really soluble by reference to anybody's certain knowledge, for nothing is certain save uncertainty in these spheres. To estimate what the American economy can "stand" is not to answer what Congress and interest groups will "take" (or what would be required to equate the two). To estimate what new weapons may do is not to answer what may be demanded of them, or opposed to them, years hence. To estimate the Russians' capabilities is not to answer what are their intentions.[4]

Congress provides both the funds and a puzzling relationship for the naval administrator. Congress provides the national equivalent

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[4] Richard E. Neudstadt, "The Presidency at Mid-Century," Law and Contemporary Problems, Duke University School of Law, Autumn, 1956.

of the town-meeting where all aspects of any questions can be aired and considered. Congressmen find themselves under pressure from many groups: constituents, radicals, lobbies, parties, and the administration.[5] As a sounding board for the Nation, and perhaps even as a substitute for the price mechanism of the private enterprise world, their inquiries lead them into the minutest parts of the Navy Organization. Perhaps their most significant relationship is the continuity which members of various committess provide. Their tenures as legislators far exceed the terms of the President, the tenure of a Department Head, and the flag-rank service of senior naval officers. For example, the vital experience of Senator Russell of Georgia, Chairman of the Armed Services Committee, goes back far beyond the beginning of World War II. Representative Vinson of Georgia proposed plans for reorganization of the Navy back in the early 30's.

Of all the political groupings acting on the Navy Organization, the military personnel groups may act the most unobtrusively, yet with the greatest influence. These groups often result from identification to a common skill. In one decade, the dominant group may be the "Gun Club." In the next, the battleship admirals. Today, the submariners, the aviators, and the engineering duty officers form effective groups which oppose and support various viewpoints within the Navy Organization. As an entire group, the military personnel may strive on occasion with the civil servants and the political leaders. This

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[5] William S. White, Citadel The Story of the U.S. Senate (New York: Harper and Brothers Publishers, 1956), pp. 138-9.

investigator is not trying to condemn nor praise this political activity. The sophisticated naval executive must learn to expect and to accomodate such politics.

Figure 3 illustrates additional political groups which impinge on the naval executive. In the United States democratic government, such groupings will always provide important forces affecting the Navy Department.

Economic. The demands of the Navy have a direct impact upon the economy of the nation. Deciding upon an annual budget level for the armed forces is much the same as an individual deciding upon the total annual amount of life insurance premiums he will pay. The more money spent annually, the greater the payoff will be should war or death occur. But also, the more money spent on insurance today, the less is available for other needs.

In wartime, the pressure upon civilian needs increases. Manufacture of automobiles is converted to manufacture of tanks. Food and automobile tires are rationed. Critical materials must be allocated between pressing military and urgent civilian requirements. This situation has been aggravated by the change of the United States to a "have-not" nation in many important raw materials. As illustrated in Figure 3, Congress acts as the nation's spokesman in the allocation of resources.

Individual. Human relations is an ever-present aspect of the Navy Organization. Within the Navy Department, individual relationships become even more important since the Department is concerned with

processing information. The most advanced computer developed to date has not approached the capability of the human mind for processing non-numerical information. Furthermore, the presence of many intangible factors which enter into the decision making process ultimately results in the need for making a considered judgement, rather than a precise mathematical selection. For the foreseeable future, judgement making will involve individuals.

It is also appropriate to reiterate that the Navy must enable the individual to meet his own needs. The slave labor of the Russian state is not available here. Even the enlisted man, or the officer, although serving for various obligated tenures, must be satisfying basic needs or sand in the form of reluctant submission or open hostility pours into the gears of Naval organization. Figure 3 illustrates the complex of individual relationships which are closely interlocked.

III ANALYSIS OF ACTIVITY

Urwick in a recent informal discussion identified two distinct activities which must be performed in management, the art of getting things done through people. First, determination must be made of what needs to be done. This may be called policy making or, as in Figure 2, broad-decision making. Second, what needs to be done must be accomplished. This may be called executive action or, as in Figure 2, directing operations.

General. The keystone of the bureau arch is the project officer, who is the individual in the bureau responsible for the technical and fiscal coordination of a specific project. Each bureau is organized

so that official correspondense concerning a project is sent to a project officer for coordination. Where a project extends into several major divisions of a bureau, the project officer providing overall coordination is often found in the Research and Development Division. Much depends upon the individual initiative of the officers and engineers to foresee coordination problems and achieve prompt corrections. Except for minor amounts of display hardware, the project officer deals in information. The project officer in an upward direction is concerned with broad decision making. The project officer in a downward direction is concerned with directing operations.

Broad decision making. The project officer seeks to have his project approved and then to obtain the maximum financial support for the project. His significance lies in the fact that he initiates the budget requests. His responsibility toward pushing his assigned project generally dwarfs any capability to allocate scarce resources between his and other projects. Therefore, approval of a project and assignment of an appropriate financial support must be accomplished by higher review levels. In technical matters, broad decision making of the allocation of scarce resources requires a comprehensive grasp of the entire Navy Technical Organization function. This grasp must include an understanding of the state of the art of technology, the enemy's achievements, available resources, and the stated requirements from the Chief of Naval Operations and the Secretary of the Navy. Although it is true that review levels acquire a vested interest in their own decisions, they are quite different from the project officers, since they do not usually originate documents concerned with directing opera-

tions on a specific project. Review levels are more concerned with the achievement of a suitable balance, selection of the most promising proposals, and effecting compatibility with established policies of the bureau and the Navy Department.

The true mettle of the project officer during budget submission is tested not in the original submission, but in accomodating changes and providing resubmissions as broad policy changes are made at higher review levels. Since the technical justification and the fiscal planning must coincide with the financial support allocated at each review level, it is necessary to revise budget requests at each point that a review level makes a significant change. Between a project officer and the Chief of a Bureau lie at least six review levels. Above the Chief of a Bureau lie eight more review levels. It is easy to see how a controversial project can become quite confused as it passes these 15 review levels. It is difficult sometimes for the project officer to keep abreast of just how much money he has currently been allocated. Fortunately, each project is not changed at each level. Justifications often are elastic and can be stretched to cover more money or contracted to support less. In some cases, the project officer receives a bonus prize as a higher level raises his project's financial support which had previously been lowered at a junior review level.

Directing operations. Directing operations implementing the decisions of the planning activity encompasses a giant complex of tasks. The bureau through its project officers must direct its naval activities and private contractors in the development of a storehouse of tech-

nical know-how through basic and applied research. Adequate supporting facilities must be supplied in phase with approved projects. Tasks and contracts must be assigned for development and demonstration of technical equipment of all types, such as ships, weapons, and aircraft. Scheduling must be provided for quantity manufacture, transportation to storage depots, storage and maintenance, and service in fleet use. Interlaced with this scheduling must be the provision of prompt accurate information with respect to stock levels, budget requirements and recommendations, status of technical projects, prospective breakthroughs, and recommendations for changes in existing plans.

IV SUMMARY

Decisions, relationships, and activities form three important facets of the jewel of Navy Organization. They provide convenient windows to study the inside. A discussion of this important triumvirate provides two important features to the reader. First, the discussion provides the stage on which changes in Navy Organization may be placed and with which proposed changes must be compatible. Second, the discussion provides the reader with a reflected view of the investigator's understanding of the Organization and thus may provide clues as to the emergence of certain conclusions and recommendations.

The backdrop is in place and the stage is set. In Chapter IV, we start the play.

CHAPTER IV

PROPOSED CHANGES IN THE NAVY DEPARTMENT ORGANIZATION

In previous chapters, the objectives and resulting complex of the Navy Department Organization have been described, with emphasis on the technical aspects. The study of this material and the reports of various commissions studying governmental organization have led this investigator to favor certain changes in the Navy Department Organization. The recommendations for these changes and the supporting discussion are given in this chapter.

The art of the possible. Before commencing discussion of changes, it is appropriate to comment on the feasibility of their introduction. George Cozzens so aptly described this as the "art of the possible."[1] Some of the proposed changes are quite revolutionary. History advises us that such major changes have usually been introduced successfully only during periods of war-tension.[2] By an ordinary test such as measurement of the magnitude of a change, interview and reaction of senior Navy Executives, or examination of the new problems to be faced, such changes appear impossible. The awesome task of rewriting thousands of position descriptions is enough to

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[1] James Gould Cozzens, Guard of Honor (New York: Harcourt, Brace and Company, 1948), p. 393.

[2] Charles Oscar Paullin, Naval Administration 1775-1911 (Collection of articles which appeared in the U.S. Naval Institute Proceedings, Annapolis, Md., during period September 1905 to July 1914. This is a book in the Navy Department Library, Washington, D. C.), "Navy of the American Revolution," p. 649.

discourage even a brave optimist. Overcoming popular distrust of the military as well as combatting the necessitites of practical politics pose difficult barriers.[3] In spite of all these difficulties, this investigator believes that a visionary Secretary of the Navy could install this "new-look" organization.

I THE NAVY DEPARTMENT ORGANIZATION AS A WHOLE

Strengthening the unity of the Department. The problems of the Navy Technical Organization are inseparably intertwined with the problems of the Navy Department Organization. The triumvirate of personnel, operations, and material must each have appropriate status, since each without the others cannot execute its own responsibility. Ferdinand Eberstadt, a recognized student of naval organization, commented in 1945 on the lack of a feeling of responsibility among naval employees for the entire navy.[4] The autonomous cluster of Navy technical bureaus and the lack of a clear understanding of the authority of the Chief of Naval Operations over the Chiefs of the technical bureaus have been recurring points of discussion in studies of Navy Organization.[5]

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[3] Harold and Margaret Sprout, The Rise of American Naval Power 1776-1918 (Princeton: Princeton University Press, 1946), p. 370.

[4] Ferdinand Eberstadt et al., "Unification of the War and Navy Departments and Postwar Organization for National Security," Senate Committee Print, 79th Congress, 1st Session of October 22, 1945 (Washington: Government Printing Office, 1945), pp. 219-220.

[5] Ibid., pp. 210-212, 216

As another facet of this same unity problem, the military officers must come to the realization that they must consider the civilian impact of their budget requests as well as the military impact. These two impacts are related like the heads and tails of a coin.[6] The Hoover Commission of 1955, in reporting on the business organization of the Department of Defense, states "because national survival is at stake, cost cannot be the primary factor."[7] If this had read "cost cannot be the <u>only</u> primary factor," then this investigator would concur. However, the present emphasis has a connotation that the military man need really only concern himself with what he wants, and not how much it costs. Such a connotation is misleading. In the democratic capitalistic system, price has a primary relevance. Many officers realize this as evidenced by the growing pleas for reduction of weapon cost. But there are still some who fail to realize the necessity of considering all aspects of requests, including the impact upon unbalancing the budget and of being able to explain the military needs in terms of costs. Eberstadt wrote in 1945 as follows:

> Some means must be sought out to assist Congress, civilian executives and naval officers to develop together long-range policies and programs that will enable Congress with confidence

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[6] "Report of the Rockefeller Committee on Department of Defense Organization," United States Congress, Senate Committee on Armed Services, 83d Congress, 1st Session, April 11, 1953 (Washington, Government Printing Office, 1953), p. 3 (<u>Rockefeller Report</u>).

[7] Commission on Organization of the Executive Branch of the Government, "Business Organization of the Department of Defense," <u>A Report to Congress June 1955</u> (Washington: G.P.O., 1955), p. 4.

> to grant appropriations for the general conduct of the Navy instead of a multiplicity of funds for specific items. This can only be done if Congress has the assurance that money is not being carelessly or unwisely spent, and this assurance depends upon a greater and more continuous knowledge of the Navy's operations and requirements than has hitherto generally existed. For this purpose some mechanism must be developed which is not in existence.[8]

Until all our senior officers and political executives can view and can express themselves in an informed, unified fashion on all facets of the allocation of scarce resources, Congress will keep a major reservation as to the Navy's ability to spend funds without close scrutiny. Correspondence courses such as "The Emergency Management of the National Economy" at the Industrial College of the Armed Forces are providing military officers with background on economic aspects of warfare.

General Manager. This investigator concludes that the key to strengthening the unity of the Navy is to establish the Under Secretary of the Navy as the general manager of the entire Navy Department directly under the Secretary of the Navy. In this position, he should preferably control the Navy Department in the manner described by the Task Force on Department Management of the 1949 Hoover Commission:

> ...The Under Secretary should be regarded as the alter ego of the Secretary, responsible both for major policy decisions and for administrative direction of the department.
>
> The external demands upon a Secretary are such that he needs a strong person to give continuing attention to

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[8] Eberstadt, *op. cit.*, p. 221.

> internal problems. At the same time the Under Secretary must be so nearly an extension of the Secretary's own personality that the two are regarded practically as one. The relations between the Under Secretary and the Secretary must be based first of all upon complete mutual confidence. The Secretary can then rely upon the Under Secretary to carry much of his political and administrative burden. . . . .[9]

The provision of such a general manager would serve to encourage overall cohesion in the Navy Department, rather than the existing fragmenting of the current bilinear organization. In the present organization, the senior military personnel are concentrated in the Office of Naval Operations. On the other hand, the senior political leaders are bound together in a functional sectionalization under the Under Secretary and above the semi-autonomous bureaus. It falls on the shoulders of the over-burdened Secretary of the Navy to coordinate the senior military advisors on one hand, and the political advisors on the other. As the general manager, the Under Secretary of the Navy could develop a unity of responsibility among all naval employees, both military and civilian, for the entire navy. He could promote a spirit of teamwork between the senior naval personnel and the civilian political executives to provide the key for unlocking the door to freeing of appropriation limits on Navy funds. But even more importantly he could unite the energy of all naval personnel toward a conscious development of the best overall Navy. In the area of military command,

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[9] Task Force Report on Departmental Management, "Departmental Management in Federal Administration," Appendix E, prepared for the Commission on Organization of the Executive Branch of the Government, January 1949 (Washington: G.P.O., 1949), p. 11.

the Chief of Naval Operations and the Commandant of the Marine Corps should retain the right of direct access to the Secretary of the Navy. The Franke Report points out the significant advantages of a balanced use of civilian executives as follows:

> To the extent that non-military matters of technology, business, industry, and manpower can be confided to the authoritative direction of knowledgeable and experienced civilian executives, better decisions in these areas will be forthcoming. Furthermore, the military command will receive improved support in its direction of the combatant forces to which it can then devote its undivided attention and energy. ... ...[10]

Recommendation No. 1. The Under Secretary of the Navy should be assigned over-all responsibility, as the general manager of the Navy Department, for supervising and coordinating the work of the Chief of Naval Operations, the Commandant of the Marine Corps, and the other Civilian Executive Assistants.

Personnel. One theme that shines brightly through all of the readings and all of the discussions is the dependence of the navy upon capable people.[11] The record warns again and again that the man must never be forgotten. World War II demonstrated the value of the men of the Naval Reserve in supporting an expanding naval force. Therefore, the existing allocation of one Assistant Secretary to the task of "Personnel and Naval Reserve" appears valid. In executing this staff

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[10] William B. Franke, et. al. Report of the Committee on Organization of the Department of the Navy 1959 (Franke Report) (Washington: Navy Department, 1959), p. 17.

[11] Rockefeller Report, op. cit., p. 17; Eberstadt, op. cit.,p. 2.

responsibility, he should be assigned the over-all responsibility for supervising and coordinating all of those offices and bureaus predominately engaged in personnel functions. These include the Bureaus of Naval Personnel and Medicine and Surgery; and the Offices of Industrial Relations and Judge Advocate General.

It should be noted that this conclusion does not coincide with that of the Franke Report. The Franke Committee, in studying the readjustment of Assistant Secretarial duties after the forced reduction from four to three, concluded that the Assistant Secretary for Personnel and Naval Reserve was the one of the four which could, however reluctantly, be dispensed with.[12] The Franke Report does not clarify the reasoning for this selection, but one plausible explanation might be that the other three areas -- Material, Financial Management, and Research and Development -- are those which seem to have the more pressing immediate problems and no one is willing to redelegate any of these functions to a single Assistant Secretary by consolidation, or to drop the Financial Management to a supporting staff role. This investigator selects the Assistant Secretary for Personnel and Naval Reserve for continuation because of a belief that in the long run, the development and motivation of a high-quality personnel force is one which requires constant political attention by an Assistant Secretary. If the personnel policies are properly selected and implemented, the basic resources of the Navy, its trained people, are being properly nurtured.

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[12] Franke, *op. cit.*, p. 37.

The development of an Admiral or a Senior Civil Servant may take 30 years. Such development should not be left to chance.

This investigator concurs with the dual responsibility assigned to the Chief of Naval Personnel as the Deputy Chief of Naval Operations for Personnel and Naval Reserve.[13] For similar reasons, it appears equally valid to assign dual responsibility to the Chief of Industrial Relations to be the Deputy Chief of Personnel of a proposed Service of Naval Material.

Recommendation No. 2.

a. The assignment of an Assistant Secretary of the Navy for Personnel and Reserve Forces should be continued. This Assistant Secretary should be assigned the over-all responsibility for supervising and coordinating the Bureaus of Naval Personnel and Medicine and Surgery, and the Offices of Industrial Relations and Judge Advocate General.

b. The assignment of a dual responsibility to the Chief of Naval Personnel as the Deputy Chief of Naval Operations for Personnel and Naval Reserve should be continued.

c. The Chief of Industrial Relations should be assigned dual responsibility as the Deputy Chief of Personnel in a proposed Service of Naval Material.

Operations. The Department of Defense Reorganization Act of 1958 has placed the exercise of military command as the responsibility

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[13] Report of the Committee on Organization of the Department of the Navy, 16 April 1954 (Gates Report)(Washington: G.P.O.,1954),pp.30-1.

of the Secretary of Defense, assisted by the Joint Chiefs of Staff, to be exercised through the commanders of unified combatant commands and specified combatant commands.[14] The Navy Department has been assigned the responsibility for administration of the naval forces assigned to such commands and for providing full support of personnel and material. The result is that the Navy Department now has an important supporting role; whereas it participates in command primarily through membership of the Secretary of the Navy and the Chief of Naval Operations in various Secretary of Defense control groups.

Still, one of the Navy's primary objectives continues to be the provision of Operating Forces for prosecution of war. Navy flag officers concerned with command functions will continue to play strong roles in the direction of the Navy Department. Still, there appears to be a weakness in the area of bringing the primary needs of the Operating Forces to the political leaders of the Navy Department and higher echelons. In order to strengthen the political support for the needs of the Operating Forces, it is recommended that a new Assistant Secretary of the Navy be designated for Operations. This investigator's concept would be of the Assistant Secretary, the Chief of Naval Operations, and the Commandant of the Marine Corps forming a triumvirate to execute this readiness function with all three reporting directly to

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[14] "Department of Defense Reorganization Act of 1958," Public Law 85-599, 85th Congress, H.R. 12541, August 6, 1958; "Functions of the Department of Defense and its Major Components," Department of Defense Directive No. 5100.1 of December 31, 1958. (This is also Appendix I of the Franke Report).

the Under Secretary of the Navy. Strengthening in this area also becomes important as the Chief of Naval Operations finds that his responsibilities as a member of the Joint Chiefs of Staff take more and more time. The Assistant Secretary should be concerned with reviewing military strategy, broad weapon concepts, enemy intelligence, and logistics support. He should also be concerned with personal inspection of fleet readiness and obtaining a full understanding of the problems of the Operating Forces.[15] Further, he should be concerned with political aspects of working with NATO and other foreign naval alliances.

Recommendation No. 3. A new Assistant Secretary of the Navy for Operations should be designated. This Secretary should report to the Under Secretary of the Navy and should be charged with collaborating with the Chief of Naval Operations and the Commandant of the Marine Corps on provision of Operating Forces for prosecution of war.

Material. The Navy Department centralizes military operations, personnel matters, and civilian control. Yet, in the area of material support, the technical bureaus report in a complex uncentralized maze on various technical areas to the Chief of Naval Operations, Chief of Naval Research, Chief of Naval Material, and the several Civilian Executive Assistants of the Navy. The autonomous nature of the bureaus has an advantage in developing capable naval leaders. Previous war experience pays tribute to the ability of the bureaus to perform

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[15] Rockefeller Report, op. cit., p. 12.

tremendous feats of supply.[16]

However, throughout the history of the Navy Technical Organization one disquieting theme -- the lack of adequate central coordination -- keeps recurring. In describing the problems of the bureaus of the last half of the nineteenth century, Charles Paullin, a noted naval historian, commented:

> The most reliable and definite criticism of the bureau system was made by the Secretaries of the Navy and the naval committees. ...It was maintained that the division of responsibility or executive power in the Navy Department, and likewise in the navy yards, was excessive. There were too many bureaus. Each of them was more or less independent of the other. Each magnified its own work, was jealous of its own powers, and was impatient of restraint. The bureaus were like so many little navy departments occupying towards the Secretary of the Navy the same relation that the several departments of the government occupy towards the President. ...The department lacking the proper correlating, coordinating, or unifying organs. The only instrumentality of this sort was the Secretary of the Navy. ...
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> The evils of the excessive division of responsibility were said to be especially manifest in the building, equipping and arming of ships. ...Since a modern ship was a unit and did not fall into four well-defined and mutually exclusive parts, the duties of these bureaus often overlapped; they interfered and conflicted with each other. ...Each bureau attended carefully to its own work, but no one attended to combining their several activities into an organized, homogeneous and effective whole. Each bureau might perform its work perfectly from its own standpoint, while in the end the finished product might be a decided failure. ... .[17]

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[16] Elting E. Morison, Admiral Sims and the Modern American Navy (Boston: Houghton Mifflin Company, 1942), p.72; Robert H. Connery, The Navy and the Industrial Mobilization in World War II (Princeton: Princeton University Press, 1951), p. 392.

[17] Paullin, op. cit., p. 1259-1260 (see part 3)

This description has relevance today.

Morison in describing the technical bureaus during the World War I period of the 20th Century states "the failure of the system lay in the fact that ... it failed to make provision for that concentration which is necessary to fight."[18] Harold and Margaret Sprout, in commenting on the experience of World War I, decry the forces that "had perpetuated an unwieldy departmental organization, notoriously weak when it came to planning the work of the Navy as a whole, and to coordinating the functions of its many branches."[19]

Fleet Admiral King characterized the lack of central military control over the technical bureaus as "a fundamental weakness in the organization of the Navy Department."[20] Eberstadt in describing the experience of World War II continues the assault:

> ...A system of administration by mutual consent. In the best of times, all the separate agencies of the Department, the secretarial agencies, the Chief of Naval Operations, and the bureaus, perform together within a framework provided by tradition and habit. The essence of such an administration is mutual debate and voluntary agreement....But in the worst of times the spirit of cooperation breaks down and the separate agencies, reinforced in many cases by their own money and in every instance by their own specialized sources of information, tend to travel more independent courses. At such times unity is abandoned and the realities of the situation are revealed.
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[18] Morison, op. cit., p. 72

[19] Sprout, op. cit., p. 370.

[20] Ernest J. King and Walter M. Whitehill, Fleet Admiral King A Naval Record (New York: W. W. Norton and Co., 1952), p. 475 footnote.

> It is, in fact, difficult to level criticism at the bureaus individually in the execution of their technical responsibilities, but it is equally difficult to defend their performance collectively in the pursuit of the end of military efficiency. ... .[21]

In the post war era, the 1955 Hoover Commission commented on the bureau system as follows:

> The traditional organization for Research and Development of the Army and Navy are not well suited to the needs of modern weaponry development. A weapons system is frequently made up of elements developed by two or more Corps or Bureaus. This compartmentalization of weaponry development between a number of independent Technical Corps (in the Army) and Technical Bureaus (in the Navy) makes effectiveness and efficiency in the operations of today most difficult. ... .[22]

Kintner also criticizes hampering of coordinating policies for new weapons by "vested interests" within the services, citing the struggle between the Navy's Bureau of Aeronautics and Bureau of Ordnance for control of missiles development.[23]

This investigator concludes that strong centralization of control of the material functions must be established.[24] There seem to be two compelling reasons for continuing to press for strong centralization. First, the growing size of wars is causing an increasing impact of the

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[21] Eberstadt, op. cit., p. 216.

[22] Organization of the Executive Branch of the Government, "Research and Development in the Government," A Report to Congress May 1955 (Washington: G.P.O., 1955), p. 17-18.

[23] William R. Kintner, Forging a New Sword A Study of the Department of Defense (New York: Harper and Brothers, Publishers, 1958), p.96.

[24] Rockefeller Report, op. cit., p. 1

requirements of the military upon the economy of the nation as a whole. Shortages of material, conflicts with the demands of other services, and needs for coordination and standardization will require increased unified attention in future wars. Second, time of introduction of a new weapon system must be shortened to a minimum. The Navy Technical Organization must have the organizational flexibility to expedite the complete weapon system process from research to fleet-introduction by quick realignment of personnel, facilities, and money.[25] To accomplish this, this investigator concludes that the material functions must be consolidated to be under the political leadership of a single Assistant Secretary and under the managing leadership of a single military leader.

This investigator does not concur with either King or Kintner that this responsibility should be centralized under the Chief of Naval Operations.[26] The Chief of Naval Operations and his office have a sufficiently challenging task in defining the "what, "where," and "when" of material without stalling on the additional overload of "how ." The Franke Board tends somewhat toward Chief of Naval Operations centralization by proposing the establishment of a new Deputy Chief of Naval Operations for Development.[27] This investigator concurs with the resulting centralization except for the transfer of the functions

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[25] Kintner, <u>op</u>. <u>cit</u>., p. 19.

[26] King, <u>op</u>. <u>cit</u>., p. 475; Kintner, <u>op</u>. <u>cit</u>., p. 193.

[27] Franke, <u>op</u>. <u>cit</u>., p. 62.

of scientific data collection and development coordination from the Office of Naval Research. The Deputy for Operations should be required to depend upon the material bureaus and their department hierarchy for information, rather than being permitted to have his own intelligence system. The present proposed organization, unless very tactfully underplayed by the Deputy for Operations, can cause severe resentment within the technical bureaus as the Deputy for Operations tends to rely on his own sources of analysis and information. Both the Deputy for Operations and the material bureaus should be working from a single information system.

Nor does this investigator concur with the recommendations of the Hoover Commission which have encouraged the continuation of the present splinter method of functional Assistant Secretaries for Research and for Material.[28] The present organization of semi-autonomous bureaus under a cooperative lead bureau system with a functional cluster of Assistant Secretaries is not likely to lend itself to speedy introduction of new weapons. The lead bureau concept lacks the unifying force of a single leader other than the Under Secretary of the Navy to encourage personnel of the bureaus to accept sacrifices for other bureaus. It is paradoxical to this investigator that the Navy which has always fought for and recognized the value of a single military command turns its back on this unifying concept in its task of quick development of weapon systems.

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[28] Commission on Organization of the Executive Branch of the Government, "Research and Development on the Government," A Report to the Congress May 1955.

In order to achieve the most rapid introduction of new material and to insure a unified economical manufacture of supporting material, the establishment of a single Service of Naval Material headed by a Vice Admiral and supervised and coordinated by an Assistant Secretary of the Navy suggests itself.[29] In this investigator's concept, these two individuals would have adjacent offices and act as a closely-knit political-executive team.[30] To them would fall the responsibility of the leading of their technical organization employees to an understanding of the need for joint endeavor and of the necessity for mutual sacrifice.

Recommendation No. 4.

a. An Assistant Secretary of the Navy for Material should be designated. He should be assigned over-all responsibility for supervising and coordinating the Service of Naval Material.

b. A Service of Naval Material should be established to be headed by a Vice Admiral, appointed by the President with the advice and consent of the Senate for a four-year term. The Chief of Naval Material should have the responsibility for the direction and coordinating of all research, development, procurement, production, and distribution of material and facilities in support of the Operating Forces. The Service of Naval Material should absorb the functions formerly

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[29] Commission on Organization of the Executive Branch of the Government, "Departmental Management," Task Force Report, January 1949, p. 13.

[30] Commission on Organization of the Executive Branch of the Government, "Personnel and Civil Service," Task Force Report, February 1955, p. 2-6.

executed by the Offices of Naval Research, Naval Material, and Naval Petroleum and Oil Shale Reserve; and the Bureaus of Aeronautics, Ships, Ordnance, Supplies and Accounts, and Yards and Docks.

Miscellaneous. There are several offices at the Department Level which have not yet been considered: Office of Information, Office of Legislative Liaison, the Comptroller, Administrative Office, Navy Management Office, and Office of Analysis and Review.

In the investigator's concept, these offices would all report to the Under Secretary of the Navy. They would be grouped in two parts: an Office of Information concerned with the flow of information necessary for control by the Secretary's Office or higher levels, and an Office of Innovation concerned with the study of the Navy Organization with a view toward improvement and simplification. There needs to be a place to keep alive a critical examination of the Navy Organization as a whole on a continuing basis. The first would be comprised of the present Office of Information, the Office of Legislative Liaison, and the Comptroller. The second would be comprised of the Administrative Office, the Navy Management Office, and the Office of Analysis and Review. These offices need not be combined but should be mutually supporting.

A significant consequence of this relationship would be the abolishment of the existing assignment of an Assistant Secretary for Financial Management. Instead, the Navy Comptroller and corresponding representatives from the three major groupings, operations, personnel, and material, should form an operating group to review and approve

navy-wide directives for documentation for budgets and reports. Where the group agreed unanimously on introduction of navy-wide documentation, they should have the authority to introduce the new directives. Where there was a lack of unanimity, the directive should be forwarded to the Under Secretary for review and a decision. The Navy Comptroller should, however, have independent analysis responsibilities for reporting to the Under Secretary of the Navy on the state of the Naval Establishment. It should be noted that this proposal differs from the Gates Report which recommends the establishment of a separate Assistant for Financial Management.[31] This investigator considers that this establishment of the Comptroller as a supporting function has the significant benefit of emphasizing the real objectives of the Navy Department. It is considered that the emphasis on primary objectives has values which far outweigh the inconvenience to the Comptroller of having to sell his comptroller programs to a control committee.[32]

Recommendation No. 5.

a. An Office of Information should be established which reports to the Under Secretary of the Navy to be comprised of the present Office of Information, the Office of Legislative Liaison, and the Comptroller.

b. An Office of Innovation should be established which reports

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[31] Report on Navy Department of 16 April 1954, op. cit., p. 22.

[32] See the comment of Commissioner Holifield that the comptroller's function is probably being overexalted by the accountants. Commission on Organization of the Executive Branch of the Government, "Budget and Accounting," A Report to the Congress June 1955 (Washington: G.P.O. 1955), p. 70; A.T. Mahan, Naval Administration and Warfare, (Boston: Little, Brown and Company, 1908), p. 7.

to the Under Secretary of the Navy to be comprised of the Administrative Office, the Navy Management Office, and the Office of Analysis and Review.

c. A Comptroller's Control Group should be established to approve all navy-wide introduction of new documents for budget and reports. Where unanimous approval of the Group cannot be achieved, directives should be forwarded to the Under Secretary of the Navy for review and decision. The Control Group should be comprised of the Navy Comptroller, and one representative from each of the three major areas of operations, personnel, and material.

II THE NAVY TECHNICAL ORGANIZATION

In Part I, the recommendation for a Service of Naval Material was made. This Service was to be comprised of the present Offices of Naval Research, Naval Material, and Naval Petroleum and Oil Shale Reserve; and the Bureaus of Aeronautics, Ships, Ordnance, Supplies and Accounts, and Yards and Docks. This Part makes recommendations concerning the organization of such a Service of Naval Material.

Vertical division. This investigator considers that movement out of the Washington, D. C. area for as much of the Service Office as possible is a distinct necessity. Ultimately, the long-suffering, World War I temporary Navy Building on Constitution Avenue will be dismantled and the navy bureaus will have to be relocated. Secondly, the Washington, D. C. governmental complex affords a primary enemy target from which dispersal of offices is a distinct advantage. Not only is the area a target for ICBM's, but it is also a target for guided

missile submarines operating in the nearby Atlantic Ocean.

It appears practicable to divide the Service on the basis of broad decision making to be accomplished in a central office in Washington, D. C. and directing operations to be accomplished at various bureaus at other locations.

The Service Office, at Washington, D. C., is conceived to be comprised of the following divisions:

Personnel -- concerned with assignment and training of personnel within the Naval Material Service (the head of this division should also be the Chief of Industrial Relations).

Plans -- concerned with existing budgets and those being processed through Congress. Implements Operational Requirements and Development Characteristics. Reviews progress status on all projects and programs. Provides active coordination for all funded programs. Coordinates station overall programs and processes requests for facilities. Receives guidelines from the Innovation Division after approval by the Chief of the Service of Naval Material.

Innovation -- concerned with long range planning beyond current budget period, both technical and facilities. Concerned with new ideas, radical concepts, and basic research. Blocks out advance

planning for plans division. Performs inspection function of bureaus and stations for the Chief and to provide grist for the long range plans mill.

Comptroller -- handles the fiscal actions of the Service. Provides computing and compiling service. Establishes uniform documentation to meet budgetary and project review requirements. Member of Department Comptroller Control Group.

Expediting -- processes contract clearances, claimant offices for scarce materials, transportation and other bottlenecks. Provides liaison office for all bureaus and stations.

Administrative -- provides supporting services such as housekeeping and mail room.

The Office of Naval Petroleum and Oil Shale Reserve would be included in the Plans Division. Additional provisions may be necessary for direction of the Bureaus of Supplies and Accounts and Yards and Docks.

Outside of the Washington, D. C. area, the directing of operations would be accomplished by the following bureaus:

Supplies and Accounts -- perform existing functions.

Yards and Docks -- perform existing functions.

Research -- perform existing functions.

Ships -- to provide the floating bases including the hulls, ship propulsion, habitability, storage spaces, fuel

handling, ship handling, galleys, and other living conveniences. (This is similar to the existing Bureau of Ships, except that all technical responsibilities for material utilized in fleet command or weapons control would be transferred to the new Bureau of Weapons.)

Weapons -- to provide all of the elements of the weapons system needed for control in battle and for delivery of the destructive force to the enemy. This would include the functions of the existing Bureau of Ordnance and Bureau of Aeronautics, plus the radar, sonar, radio, and combat information center responsibilities of the existing Bureau of Ships.

The Bureaus of Supplies and Accounts and Yards and Docks perform functions which are essential for support of the Navy Department and this investogator does not detect any gain to be achieved by consolidation with other functions.

The Bureau of Research (Office of Naval Research) serves a valuable investment function in broadening the technical state of the art through its support of basic research. This investigator has not reached any conclusion nor seen any evidence which encourages merger of its basic research function with the Bureaus of Ships and Weapons. However, any control functions which the Office of Naval Research formerly performed of the research of the bureaus should be accomplished by the Service Office.

The last two bureaus -- Ships and Weapons -- are most vitally concerned with the marketing operation of the Navy in delivery by the Operating Forces of destructive force to the enemy. As one compares the Navy with its sister services, the Air Force and the Army, one notes that the distinguishing feature of the Navy is the floating base. The ships -- aircraft carriers, cruisers, tankers, submarines -- serve as mobile camps which house, feed, and amuse the military personnel while a search is being made for the enemy. Comfort of personnel becomes a significant factor, since cruises are of indefinite duration. The floating base also provides a means for moving the delivery system within range of the enemy and of providing a store of hard goods for his destruction.

This floating base offers a scheduling problem to the Navy planner since one base normally outlives several families of delivery systems. New radars are added, modern aircraft replace the old, and storage systems for odd-shaped guided missiles must be provided. Frequently such modernizing alterations can take place only during major overhauls in naval shipyards. The scheduler must keep the floating bases ready to accept the modern weapons, a most difficult task.

With the introduction of guided missiles, long-range bombers, low-flying snoopers, and atomic bombs, the fleet weapon system planner must consider all aspects of his delivery system. He is concerned with the early warning radar, whether on board ship or mounted in an orbiting aircraft. He needs full knowledge of the radio communication network which links the battle force. The sonar secrets which enable

penetration of the water fog must be understood by him. He is concerned with the product being delivered to the consumer -- the atomic warhead or high explosive warhead. He needs to understand the transporting agents or delivery trucks such as guided missiles, torpedoes, projectiles, and bomber aircraft. He must know the method of control aboard the floating base -- the computer, the combat information center, air control, the directors, and various plots. In actual combat with an enemy, all of these aspects are closely interrelated.

Hence, this investigator concludes that the Bureau of Ships should be concerned with providing the living floating base and the Bureau of Weapons should be concerned with providing all elements of the weapons system needed for control in battle, for detection of the enemy, and for delivery of the destructive force to the enemy. This investigator was unable to find any value in consolidating the two bureaus into a single bureau.

Recommendation No. 6.

a. A central office for the Service of Naval Material should be established in Washington, D. C. to perform the function of broad decision making with respect to the allocation of scarce resources.

b. The existing bureaus of Supplies and Accounts and Yards and Docks, and the Office of Naval Research should be continued essentially as is. However, these activities should be relocated away from the Washington, D. C. area.

c. A Bureau of Ships should be established which absorbs those functions of the existing Bureau of Ships concerned with providing a

habitable floating base. This bureau should be relocated away from the Washington, D. C. area.

d. A Bureau of Weapons should be established which absorbs the functions of the existing Bureaus of Ordnance and Aeronautics and those functions of the Bureau of Ships having to do with the control of delivery systems in combat, for detection of the enemy, and for delivery of destructive forces to the enemy. This bureau should be relocated away from the Washington, D. C. area.

III MISCELLANEOUS

This Part discusses recommendations on innovation.

Innovation. Previous recommendations have suggested that offices of innovation be established reporting to the Under Secretary of the Navy and the Chief of the Service of Naval Material. There are two additional concepts concerning innovation which are important: freeing of upward channels, and freeing of downward channels.[33]

The environment for handling ideas within the Department of the Navy should be altered so that two classes of ideas are recognized. One class would continue as at present to be the formal recommendation of a ship or station commander which stems out of his assigned responsibility to keep his superiors advised of desired improvements or unsatisfactory conditions. These should go forward to the Navy Technical Bureau via the squadron commander, the type-commander, the fleet commander, and the Chief of Naval Operations. Formal answers should be

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[33] Mahan, op. cit., p. 66-67, 77-85.

required. However, a second class of informal ideas should also be recognized. These should be the brainstorming type of idea which should be fed directly to Offices of Innovation in the Navy Department for consideration, but with no necessity for a formal reply, nor the necessity for obtaining endorsements from all concerned parties. This investigator knows of a recommendation forwarded by a junior officer concerned with establishment of a distinguishing breast insignia to designate qualified technical officers in the Department of Defense. This idea slid through a discouraging morass of endorsements in various technical bureaus, and was finally rejected by an Assistant Secretary of the Navy. The bureaus had no other choice, since they were required to submit a considered endorsement, but to comment that they in essence were not convinced of the value. This investigator considers that the better method of handling the idea would have been to send it directly to an office of innovation who could consider its merits, along with other ideas to see what synthesis might be made from a multitude of ideas. No formal reply to the originator should be required unless his idea rings the bell of being useable.

For downward channels, the Service of Naval Material should issue a periodic magazine, on the order of "All Hands," concerned with the problems of material. This magazine would be a unifying force for the whole Service. Portions of the magazine would be allocated to the bureaus for discussion of individual problems. But more importantly, the Office of Innovation would feed into the magazine unclassified ideas and problems for stimulation of the readers. A regular feature of the

magazine would be a value engineering page. Guest articles might be invited from industry to discuss perplexing problems of industrial-naval relations which need to be improved. An educational section on governmental processes above the Secretarial level would be most valuable. Finally, reports of material introduced into the Operating Forces should be included to show where results were good and where failure occurred. Emphasis should be placed on informality of style and stimulation of thought, rather than precise official jargonese.

Recommendation No. 7. Present methods of handling ideas should be revised to permit unofficial ideas to be presented to Offices of Innovation in the Navy Department, and to provide a counterflow of stimulating ideas from the Navy Department to personnel throughout the Service of Naval Material.

CHAPTER V

SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

I CONCLUSIONS

In summary, the major conclusions made by the investigator throughout this report are:

Objectives of the Navy Department. The objectives of the Navy Department must be established to meet the requirements of three groupings of people: (1) the enemy as the consumer, (2) the American people as a whole setting the working framework, and (3) the individual as an articulate source of power and labor. To meet these requirements, the Navy Department has to achieve three corresponding objectives: provision of forces for war, conformance with national customs, mores, and laws, and meeting needs of the individual employee.

Subsidiary Objectives of the Navy Technical Organization. In addition to supporting the objectives of the Navy Department Organization, the Navy Technical Organization is concerned with achieving the following subsidiary objectives: providing maximum readiness, achieving orderly innovations, and producing maximum cost efficiency.

Division of bureau-level activities. When considering broad aspects of the decision-making process at the bureau level, this investigator concludes that the activities can be divided into two major groups: broad decision making and directing operations.

The "floating base" concept. The unique feature of the Navy as distinguished from the Army or Air Force is the floating base which must serve the dual function of providing long-term housing and

transport for military personnel prior to engaging in battle, and then of providing the base for command and for supply of weapons during the actual battle.

Relationships. Impinging upon the decision-making process in the Navy Department are important relationships such as political, economic, and individual. The Organization must be able to accomodate these relationships.

Centralization of control of the Navy material functions. Because of the increasing impact of the requirements of the military departments on the civilian economy and because of the need to shorten to a minimum the research-to-fleet introduction time of new weapons, it is concluded that strong centralization of control of the Navy material functions should be effected.

II RECOMMENDATIONS

In summary, the specific recommendations made by the investigator throughout this report are:

1. General Manager. The Under Secretary of the Navy should be assigned over-all responsibility, as the general manager of the Navy Department, for supervising and coordinating the work of the Chief of Naval Operations, the Commandant of the Marine Corps, and the other Civilian Executive Assistants.

2. Personnel.

a. The assignment of an Assistant Secretary of the Navy for Personnel and Reserve Forces should be continued. This Assistant Secretary should be assigned the over-all responsibility for supervis-

vising and coordinating the Bureaus of Naval Personnel and Medicine and Surgery, and the Offices of Industrial Relations and Judge Advocate General.

b. The assignment of a dual responsibility to the Chief of Naval Personnel as the Deputy Chief of Naval Operations for Personnel and Naval Reserve should be continued.

c. The Chief of Industrial Relations should be assigned dual responsibility as the Deputy Chief of Personnel in a proposed Service of Naval Material.

3. Operations. A new Assistant Secretary of the Navy for Operations should be designated. This Secretary should report to the Under Secretary of the Navy and should be charged with collaborating with the Chief of Naval Operations and the Commandant of the Marine Corps on provision of Operating Forces for prosecution of war.

4. Material.

a. An Assistant Secretary of the Navy for Material should be designated. He should be assigned over-all responsibility for supervising and coordinating the Service of Naval Material.

b. A Service of Naval Material should be established to be headed by a Vice Admiral, appointed by the President with the advice and consent of the Senate, for a four-year term. The Chief of Naval Material should have the responsibility for the direction and coordinating of all research, development, procurement, production, and distribution of material and facilities in support of the Operating Forces. The Service of Naval Material should absorb the functions formerly

executed by the Offices of Naval Research, Naval Material, and Naval Petroleum and Oil Shale Reserve; and the Bureaus of Aeronautics, Ships, Ordnance, Supplies and Accounts, and Yards and Docks.

5. Miscellaneous.

a. An Office of Information should be established which reports to the Under Secretary of the Navy, to be comprised of the present Office of Information, the Office of Legislative Liaison, and the Comptroller.

b. An Office of Innovation should be established which reports to the Under Secretary of the Navy to be comprised of the Administrative Office, the Navy Management Office, and the Office of Analysis and Review.

c. A Comptroller's Control Group should be established to approve all navy-wide introduction of new documents for budget and reports. Where unanimous approval of the Group cannot be achieved, directives should be forwarded to the Under Secretary of the Navy for review and decision. The Control Group should be comprised of the Navy Comptroller and one representative from each of the three major areas of operations, personnel, and material.

6. Vertical division of the Navy Technical Organization.

a. A central office for the Service of Naval Material should be established in Washington, D. C. to perform the function of broad decision making with respect to the allocation of scarce resources.

b. The existing bureaus of Supplies and Accounts and Yards and Docks and the Office of Naval Research should be continued essentially as is. However, these activities should be relocated away from

the Washington, D. C. area.

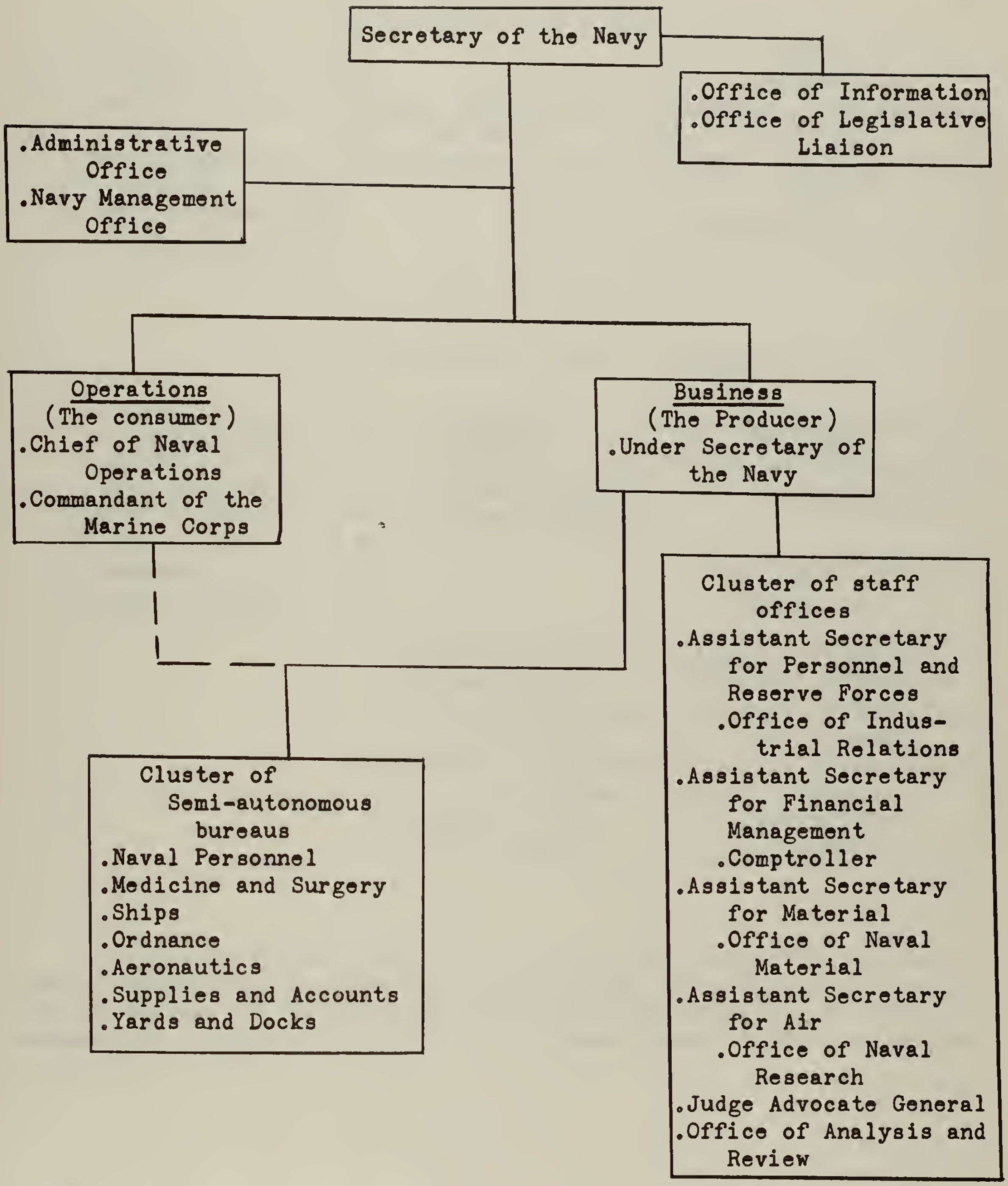
c. A Bureau of Ships should be established which absorbs those functions of the existing Bureau of Ships concerned with providing a habitable floating base. This bureau should be relocated away from the Washington, D. C. area.

d. A Bureau of Weapons should be established which absorbs the functions of the existing Bureaus of Ordnance and Aeronautics and those functions of the Bureau of Ships having to do with the control of delivery systems in combat, for detection of the enemy, and for delivery of destructive forces to the enemy. This bureau should be relocated away from the Washington, D. C. area.

7. Innovation. Present methods of handling ideas should be revised to permit unofficial ideas to be presented to Offices of Innovation in the Navy Department, and to provide a counterflow of stimulating ideas from the Navy Department to personnel throughout the Service of Naval Material.

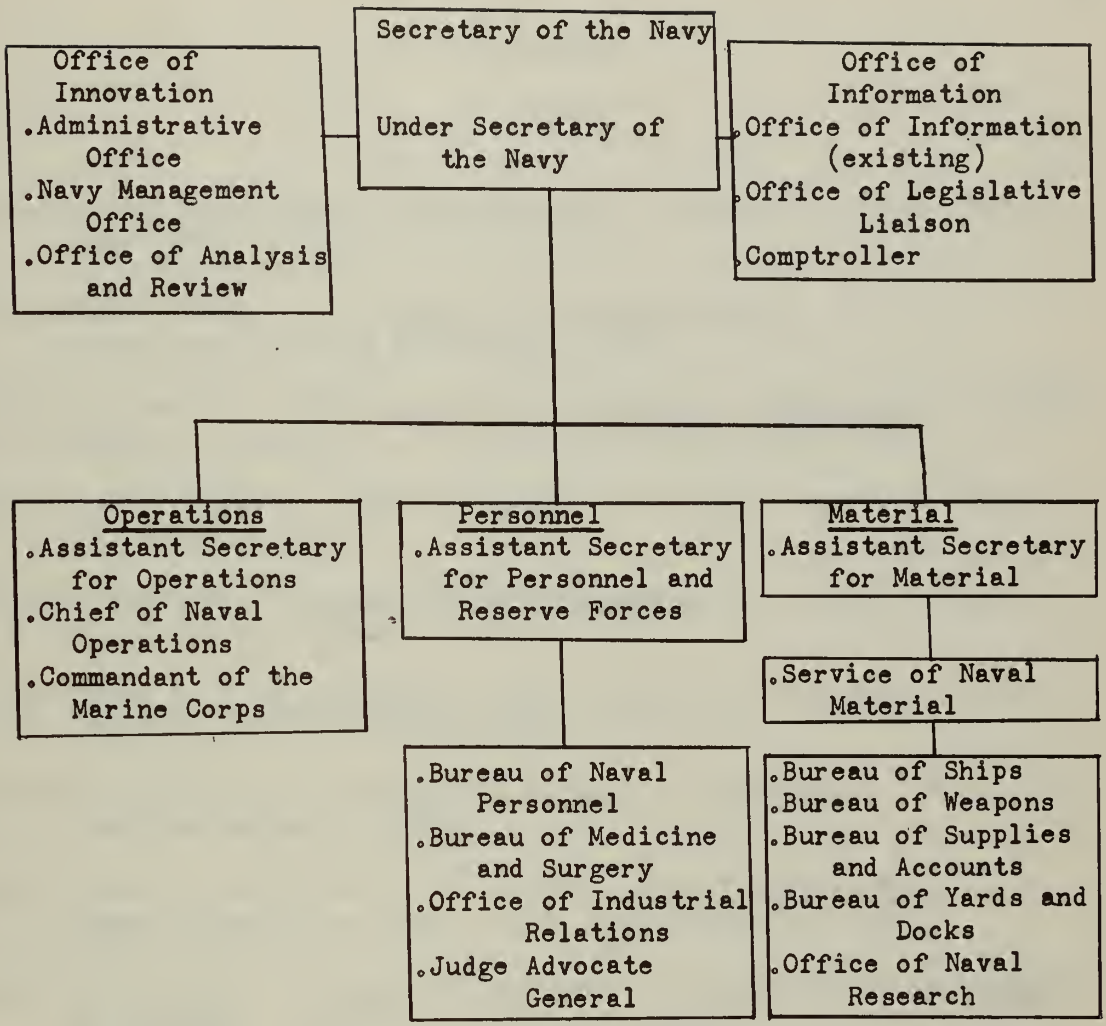
III SUMMARY CHARTS

Figures 4 and 5 in Summary show a before and after view of the Navy Department Organization based on the conclusions and recommendations of this study.



Note: .The Chief of Naval Operations has coordinating and directive authority over the bureaus and offices of the Navy Department as may be necessary to meet operating requirements.
.This is the Navy Department Organization prior to an implementation of the 1959 Franke Report.

Figure 4. Organization of the Navy Department as of January, 1959.



Note: The Under Secretary of the Navy is responsible as the general manager for coordinating and directing the entire Navy Department in support of the Chief of Naval Operations and the combatant commands to insure the readiness of the Naval Operating Forces for the prosecution of war.

Figure 5. Organization of the Navy Department incorporating this investigator's recommendations.

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APPENDIX A

INTERVIEW GUIDE SHEET

GUIDE FOR INTERVIEWS IN CONNECTION WITH A MASTER'S THESIS ON "An Analysis of the Navy Technical Organization at the Bureau Level"

In general, I am searching for comments on the capability of the existing technical organization to meet now and in wartime in an optimum manner the needs of the operating fleet. The following are specific areas of interest:

1. Each year, a Bureau Chief goes to his superiors and Congress and supports an overall budget for his Bureau which proposes an overall technical program based on the best available information. Prior to the next budget review, such a program or aspects of it may come under critical review. At what point does a criticism become significant enough to warrant changing the established program? What forces operate on a Bureau Chief tending to prevent such mid-year changes?

2. In the operating fleet, ships are assigned for administrative purposes to Type Commanders and for combat operations to Task Force Commanders. Doesn't it seem desirable that in a similar manner personnel within the Technical Bureaus should be combined for joint projects under a Project Officer in a manner similar to POLARIS? Perhaps the answer here is to establish a single Technical Bureau to provide a single common administrator and an adjustable project staff?

3. One of the most difficult problems in any organization is the encouragement of positive criticism from junior personnel. In a military organization, layers of endorsements on letters forwarded via chains of command seem to stifle all but the most stubborn Sims-like person. Recognizing a slight weakening of command chains and a possible impact on fitness reports, nevertheless, wouldn't there be significant advantage in permitting direct letters of comment by naval personnel to technical bureaus on technical matters?

4. In considering the Navy Technical Organization for the next decade, what do you consider are the most pressing problems which will exist and how do you feel they should be solved?

Note: All interviews are off the record and no quotes of individual persons are made unless prior approval is obtained.